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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,705	03/06/2007	David James Dore	818109	5337

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EXAMINER	
CERNOCH, STEVEN MICHAEL	
ART UNIT	PAPER NUMBER
3752	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,705	DORE, DAVID JAMES	
	Examiner	Art Unit	
	STEVEN CERNOCH	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *1-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15 -19 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Gettinger et al. (US Pat No 5,570,840).

Re claim 15, Gettinger et al. shows a mist-spraying apparatus (Fig. 1) comprising: an air-blowing means (26) having an outlet conduit (46) and an inlet conduit (68), said air-blowing means for blowing air through said outlet conduit into the enclosed space (col. 6, lines 62-63), said air-blowing means for drawing air from the enclosed space through said inlet conduit so as to circulate the air within the enclosed space (col. 7, lines 28-34); an atomizing nozzle (42) positioned within said outlet conduit; a reservoir (16) having a liquid therein; a spray means (col. 6, lines 26-27) for delivering the liquid from said reservoir to said atomizing nozzle such that atomizing particles emitted by said atomizing nozzle are entrained in the air blown by said air-blowing means so as to be evenly distributed in the enclosed space, said spraying means comprising a pump (24); and a controlling means (22) for controlling said air-blowing means and said spraying means, said controlling means cooperative with said air-blowing means and said atomizing nozzle for commencing operation of said air-blowing means prior to operation of said atomizing nozzle and for continuing operation of said

air-blowing means after operation of said atomizing nozzle has ceased so as to continue circulation of the air and any atomized particles therein in the enclosed space for a predetermined period of time (col. 2, lines 60-64).

Re claim 16, Gettinger et al. shows said atomizing nozzle (Fig. 1, 42) positioned centrally within said outlet conduit (36).

Re claim 17, Gettinger et al. shows said outlet conduit having a rectangular cross-sectional profile (Fig. 1, 46).

Re claim 18, Gettinger et al. shows said outlet conduit defining a slot through which the air is blown by said air-blowing means (Fig. 1, 44).

Re claim 19, Gettinger et al. shows said atomizing nozzle being inset within said outlet conduit (Fig. 1, 42).

Re claim 25, Gettinger et al. shows wherein said reservoir contains a mixture of oil and an aqueous solution (column 6, lines 20-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettinger et al. (US Pat No 5,570,840).

Re claim 20, Gettinger et al. discloses the claimed invention except for wherein a spraying tip of the atomizing nozzle is inset by at least 25 mm and by no more than 40 mm into said outlet conduit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to inset the nozzle into the outlet by at least 25 mm and by no more than 40 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Re claim 23, Gettinger et al. discloses the claimed invention except for wherein said spraying means is adapted to spray at least 11 liters of liquid per hour at a pressure of 7×10^5 N per m^2 (7 bar). It would have been obvious to one having ordinary skill in the art at the time the invention was made to spray at least 11 liters at a pressure of 7×10^5 N per m^2 (7 bar), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Re claim 26, Gettinger et al. discloses the claimed invention except for wherein said oil comprises monopropylene glycol or monoethylene glycol. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the oil comprise monopropylene glycol or monoethylene glycol, since it has been

held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Re claim 27, Gettinger et al. discloses the claimed invention except for wherein the mixture comprises less than 1 part oil to every 100 parts aqueous solution by volume. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the mixture comprise less than 1 part oil to every 100 parts aqueous solution since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettinger et al. (US Pat No 5,570,840) as applied to claim 15 above, and further in view of Herr et al. (US Pat No 6,488,219 B1).

Re claim 21, neither Gettinger et al. nor Moy et al. teach wherein the air-blowing means is provided with a source of steam whereby steam is additionally blown into the enclosed space via said outlet conduit.

However, Herr et al. does teach wherein the air-blowing means is provided with a source of steam whereby steam is additionally blown into the enclosed space via said outlet conduit (column 2, line 26).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Gettinger et al. with the steam of Herr et al. as it would be obvious to try.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettinger et al. (US Pat No 5,570,840) as applied to claim 15 above, and further in view of Fuchs et al. (US Pat No 5,147,087).

Re claim 22, neither Gettinger et al. nor Moy et al. show wherein said atomizing nozzle comprises a 60° solid cone nozzle.

However, Fuchs et al. does teach wherein said atomizing nozzle comprises a 60° solid cone nozzle (column 8, line 60).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Gettinger et al. with the nozzle of Fuchs et al. to function on the requirements to be made on the medium to be processed (column 8, lines 63-64).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettinger et al. (US Pat No 5,570,840) as applied to claim 15 above, and further in view of Fuchs et al. (US Pat No 5,147,087).

Re claim 24, neither Gettinger et al. nor Moy et al. show wherein said air- blowing means comprises a cylindrical fan.

However, Nishi et al. does teach a fan (column 16, line 57).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Gettinger et al. with the fan of Nishi et al. to pressurize the liquid in the chamber (column 17, lines 5-6).

Response to Arguments

Applicant's arguments filed 4/30/2009 have been fully considered but they are not persuasive. Applicant's argument directed toward the atomizing nozzle of Gettinger et al. not being able to operate independently of the air blowing means is not commensurate to the current claims as such a description and limitation do not exist in any of the current claims. As such, said controlling means does exist in Gettinger as it would be the trigger, numeral 22 of figure 1, as it is what begins and ends the spraying action of the device which does, as applicant pointed out already, begin the air spraying means first, then the atomization occurs while the air spraying means continues throughout and after the atomization has ceased which fits the current claimed limitation. Also, as applicant pointed out, the granting of the European patent holds no basis over the current application. Therefore, the Examiner maintains his rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN CERNOCH whose telephone number is (571)270-3540. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. C./
Examiner, Art Unit 3752

/Len Tran/
Supervisory Patent Examiner, Art Unit 3752